



U.S. AIR FORCE

Routine Screening for *Chlamydia trachomatis* infection In Healthy Young Men



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Background: *Chlamydia trachomatis* infections are highly prevalent, often latent, and can produce serious sequelae and healthcare burden. Because of this, authorities such as the US Preventive Services Task Force,¹ the American College of Preventive Medicine,² and the Canadian Task Force on the Periodic Health Examination³ are generally unanimous in recommending annual chlamydia screening for sexually active young women. As a result, routine screening of young women has led to substantial reductions in chlamydia infections, pelvic inflammatory disease, and ectopic pregnancy. However, these same authorities have been less forceful regarding screening for asymptomatic young men. In general, men have been thought less likely than women to contract chlamydia infections, more likely to have symptoms and therefore seek treatment when infections do occur, and less likely to seek screening in the absence of symptoms. However, recent data from several countries with well-established chlamydia screening programs have revealed upward trends in infection rates among young women, leading some to speculate that failure to test young men might be the cause.^{4,5}

Methods: One major command within the United States Air Force elected to recommend routine chlamydia screening for both young active duty women and men during annual physical examinations beginning in 2002. However, only 8 of 17 bases in the command chose to participate and actually performed routine chlamydia screening for both sexes. The remainder routinely screened young women and only tested young men when clinically indicated. First-catch urine specimens were obtained during annual preventive medical examinations and processed according to the manufacturer's guidelines. These were forwarded to a central laboratory, where samples were tested for *C. trachomatis* and *Neisseria gonorrhea* using a commercially available test kit (GEN-PROBE™ APTIMA™ Combo2 Assay, Gen-Probe, San Diego, CA).

Results: Over 27,000 urine samples from young men were submitted from bases in the command between April 2002 and January 2004. Bases conducting universal screening submitted the vast majority of the samples (23,670-83.4%) while far fewer samples (3,413-12.6%) were submitted from bases that only conducted male screening when clinically indicated.

Bases conducting universal male screening had an overall test positive rate of 5.3% between April 2002 and January 2004 with monthly rates ranging from 3.4 to 3.7% (Figure 1). Despite several monthly peaks over 7.0%, the general chlamydia test positive trend was downward. Overall the prevalence among these bases ranged from 6.6 to 4.6%. At participating bases, the vast majority of chlamydia positive samples (80%) were from men less than 25 years of age.

Bases that performed focused male screening had an overall test positive rate of 19.1% with a slightly decreasing trend (Figure 2). Overall chlamydia test positive rates from bases conducting focused screening ranged from 26 to 16%.

Discussion: Bases conducting universal screening among young males experienced a substantial decline in positive chlamydia tests between April 2002 and January 2004. Similar decreases were seen for positive chlamydia tests in young women (Figure 1), with an overall rate of 6.4%. This rate was similar to that observed (6.6%) at bases not conducting universal male screening. This finding suggests that universally screening young men made no difference in chlamydia positive test rates among young women, at least at the chlamydia prevalence present in the population.

Our preliminary findings suggest that the prevalence of chlamydia infection among young active duty Air Force men is similar to that found among their woman counterparts when universal screening of both sexes is conducted. However, positive chlamydia test rates among young women were similar whether or not young men received universal screening. Further study will be required to determine if universal male chlamydia screening reduces the population disease burden. We plan additional studies which will address demographic risk factors and the short-term health effects of testing positive for chlamydia infections. Based on that information, we will then be better able to conduct a formal cost-benefit analysis of universal male Chlamydia screening.

References:

- ¹US Preventive Services Task Force. Screening for chlamydial infection: recommendations and rationale. Last accessed on the internet at: <http://www.ahcpr.gov/clinic/ajpmssuppl/chlarr.htm> on 23 Sep 2003.
- ²Holblad-Fadiman K, Goldman SM. American College of Preventive Medicine practice statement. Screening for Chlamydia trachomatis. Am J Prev Med 2003;24(3):287-92.
- ³Davies HD, Wang EE. Periodic health examination, 1996 update: 2.

Figure 1. Number of male chlamydia screening tests conducted by participating bases.

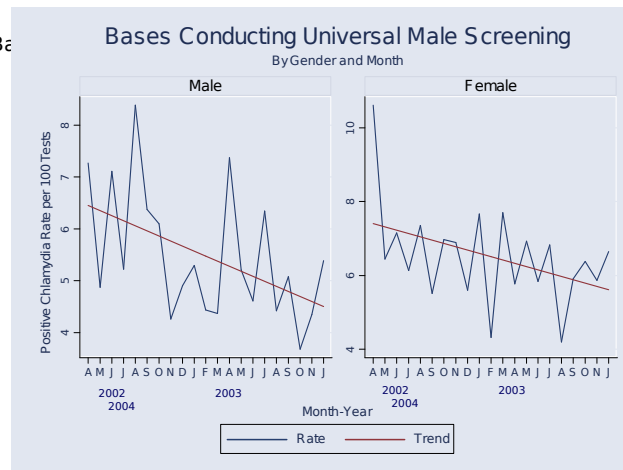


Figure 2. Rate of positive male chlamydia screening tests conducted by participating bases.

